



Styling

Modern curved shape, wrapover sky view window at rear and glazed stairwell.



Reduced Weight

Enviro400H City is lighter than its predecessor models.



More Seats

More seating capacity than previous hybrid models.



QRG System

Patented, Quick Release Glazing system that reduces window replacement from 3 hours to 3 MINUTES.



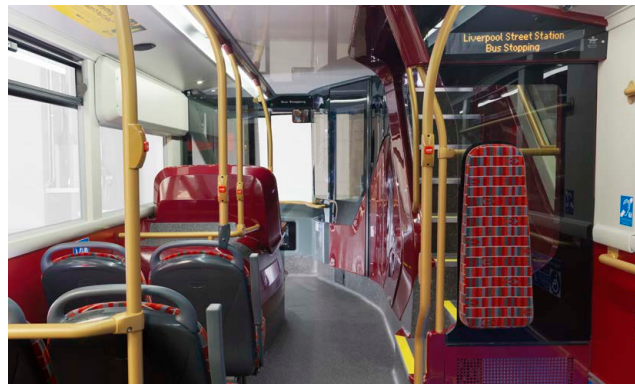
Reliability

Analysing every fault reported on every ADL two-axle double deck for eight years has led to reliability improvements across the board.



Maintenance

Access to all regularly maintained items has been improved as a result of a three-year customer engagement programme.



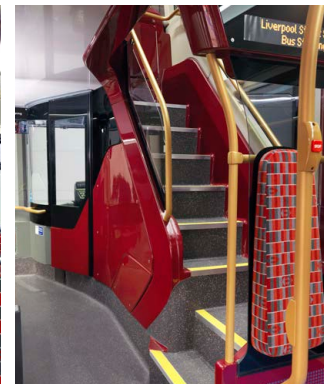
Heating & Ventilation

Radical new heating and ventilation system maintains a constant temperature throughout the bus.



Interior

A light, airy and welcoming interior, enhanced by LED lighting, large windows and a gloss finish to panels.



Electrics

The fully multiplexed electrical system is accessed in one central location. Similarly, wiring harnesses are reached easily.



Driver's Environment

Large cab with wrap-round raked windscreen, integrated assault screen, adjustable steering column and positive feedback switches.



Engine

Robust 4.5 litre iSBe Cummins engine, BAE System HybriDrive technology and the latest generation of Lithium-ion batteries.



Manufacturing

A new approach to manufacturing reduces build hours, improves quality and reinforces production consistency across multiple build sites.



SPECIFICATION

ENVIRO400H City
INNOVATION with STYLE



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Alexander Dennis Limited (ADL) has a policy of continuous development.
The right is reserved to change specifications of the models and items described.
For the latest details always consult ADL.

ENVIRO400H City
INNOVATION with STYLE



Meet the **Enviro400H City**, the stunning new variant of Britain's best-selling double deck bus.

It is a hybrid vehicle that brings together elegance and practicality and ushers in a contemporary new look that features a raft of sophisticated, yet pragmatic design solutions, all of which give it a real street presence, while retaining the passenger comforts and dependability that are the hallmark of the market-leading Enviro400 range.

CHASSIS SPECIFICATION

Engine

Cummins ISB4.5E6 four cylinder turbocharged and intercooled diesel engine certified to Euro6 emission levels.
Displacement: 4.5 litres.
Power: 210 PS (157 kW) @ 2300 rpm.

Hybrid Driveline

BAE Systems HybriDrive hybrid driveline incorporating:
140 kW continuous power @ 200 rpm compact water cooled permanent magnet generator.
195 kW peak power @ 500-2000 rpm.
120 kW continous power @ 650-2485 rpm compact oil to water cooled motor with 5100 Nm peak torque @ 0-3200 rpm.
3800 Nm continuous torque @ 0-450 rpm.
360 kW water cooled integrated propulsion control system customised for optimum fuel consumption, performance and emissions.

Gearbox

Choice of Voith D854.6 V53 4 speed or ZF 6HP1203B six-speed automatic gearbox both fitted with integral retarders and interlocks.

Front Axle

ZF RL75 deep drop beam axle.
Capacity 7500 kg.
Lock angle 55°.

Rear Axle

ZF AV-132 drop centre axle.
Capacity 13000 kg.

Suspension

Full air suspension mounted within chassis frame floor contours eliminating component intrusion into passenger saloon areas.
Front: Two 305 mm (12") air springs. Multilink location.
Anti-roll bar and two double-acting dampers.
Rear: Four 255 mm (10") air springs. Multilink location.
Anti-roll bar and four double-acting dampers.
Features: Electronic Levelling Control (ELC) and fast-kneel facility on front suspension reducing height from 325 mm to 245 mm.

Steering Gear

ZF 8098 integrally powered, variable ratio steering gear.
457 mm two-spoke steering wheel.
Telescopic steering column and binnacle interlocked with the handbrake for safety.

Frame

Lightweight frame
Bolted modular platform.
Steel channel, rectangle and angle sections.
Frame Section is 120 mm x 80 mm x 8 mm thick.
Finished with a two-pack epoxy compliant corrosion-resistant paint.

Braking System

Electronic Braking System (EBS)
Full air operated category I ABS 430 mm disc brakes with separate systems front and rear.
Park brake is air-released, spring-actuated on rear wheels.
Hand control valve.
Fitted with Knorr Bremse 630 air compressor and Air Processing Unit (APU).

Wheels and Tyres

Tyres: 275/70R22.5 X Incity XZU tubeless radial
Wheels: 7.5" x 22.5" steel spigot mounted.

Cooling System

Rear mounted offside side-by-side cooling pack incorporating intercooler with electronically controlled hydraulic fan drive. Separate coolant header tank with sight glass and offside fill point. Flyscreen is fitted in front of radiator to minimise dirt ingress.

Fuel tank

Aluminium fuel tank with a capacity of 275 litres with an option to 'choke' the capacity to 200 litres.
30 litre AdBlue tank mounted rear of the rear axle.

Electrical Equipment

24 volt, single pole negative earth.
2 x 12 volt heavy duty maintenance-free batteries with 225 amp/hour capacity. Mounted on slide-out carrier under driver's cab.
Battery boost socket supplied.
Integrated intelligent battery guard.
2 x 120 amp alternators.
Fast fuse and overvoltage protection.
Continental/VDO Kibes multiplex system.

Instrumentation

Stylish instrument and control binnacle with all instruments clearly visible, incorporating ISO 16121 features and dimensions.
Colour TFT screen displaying running data and intuitive On-Board Diagnostics.
All electrical controls mounted forward of the driver for easy reach.
Positive action, tactile rocker switches with LED illumination.
Exterior lighting check function.

Options

- Electronic water header tank level indicator
- Tachograph
- Driver's cab air-conditioning/ saloon chilled air system
- Hubodometer
- Full vehicle squat
- Ferry lift
- Spare wheel and tyre
- Identic and Posilock fuel fill systems
- Identic AdBlue fill system
- Radiator filter
- Cooling pack induction filter
- Engine oil management system
- Service (Femco) drain valves
- Separate start batteries
- Maintenance free gel batteries
- Monbat AGM low maintenance batteries

BODY SPECIFICATION

Legislation

Our vehicles are designed and Type Approved as compliant with all relevant European Community legislation for the UK and Europe, with other country specific legislation available on request.

Structure

The low weight body structure consists primarily of aluminium extrusions and shear panels with the addition of stainless steel in areas of higher stress ensuring a high body stiffness and durability whilst minimising the vehicle mass. All of the structural members are mechanically joined ensuring ease of repair following any form of collision damage.
The top deck roof and interdeck consist of single piece composite panels significantly increasing the body stiffness with a reduction in weight compared to conventional construction. The top deck roof composite has high thermal insulation properties helping to prevent condensation.
The body is rigidly fixed to a fully integrated steel chassis frame optimised for low weight and high strength.

Any risk of electrolytic corrosion between dissimilar metals is removed by the application of dielectric paint. The steel frame is treated with a wax injection technology prior to undersealing the completed vehicle.

Exterior Panels

Exterior aluminium side panels are flush fitting with the glazing units giving a very clean aesthetically pleasing appearance. Care has been taken to avoid protrusions including hinges and fixing heads to prevent build up of road dirt and to make cleaning easier. Panels in higher risk of damage from kerbs including side skirts and lower corner mouldings are quickly and easily replaced. Corner mouldings are separate from the upper panels isolating potential damage and minimising replacement costs.

Glazing

The vehicle has ADL's patented Quick Release Glazing (QRG) system. This new system has a much improved aesthetic appearance both inside and out, whilst being quicker to replace than a gasket glazed vehicle. The system has a unique sealing system reducing water ingress without the need to apply messy sealants. The glass can be replaced by one man from inside the bus thus removing the need to work at height from platforms. Front, rear and glazed stairwell glazing is bonded.

Doors

The entrance is fitted with a twin leaf inward swing glider door with active seals for improved sealing performance.
The optional exit door is fitted with a twin leaf sliding plug door providing a clear exit platform.
Pneumatic doors are fitted as standard.

Interior Trim

The interior comprises of wipe-clean laminates for ease of cleaning which can be tailored and coloured to the operator's requirements and to match floor and seat colour schemes.

Driver's Cab

A spacious, comfortable, quiet and ergonomically designed drivers cab giving excellent forward vision enhanced by the use of a curved windscreen is provided. The fully adjustable steering wheel and instrument binnacle ensures ease of reach to the operating switches. The integrated assault screen available with both fixed and drop down screens in the door provides superb driver protection.

Flooring

All products offer low entry as standard with a floor constructed from treated 12 mm birch plywood and covered with a hard wearing floor system available in a wide range of colours and designs to suit the operator's requirements. The joints between vertical panels and the floor are radiused making cleaning much easier.

Heating and Ventilation

The standard vehicle is supplied with a blown-air heating system to the saloons with forced air ventilation from the front dash.
The vehicle structure is insulated with fire retardant sheet insulation. The system is fitted with brushless motors, powered extract and automatic temperature control.
Air-chill is fitted as standard on vehicles for the London market but is also available as an option.

Electrical System

The 24 volt electrical system is fully multiplexed, with hardware located in easy-to-access locations. The system provides intuitive On-Board Diagnostics via the driver's screen.
Dedicated expansion locations and interfaces are provided for additional customer equipment, including a Bus-FMS standard gateway. The chassis system wiring is integrated and routed through the body, to improve reliability and accessibility.
Bulkhead connections and modular wiring improve troubleshooting and ease of repair.
Cleaning light switch provides timer controlled interior lighting. Driver's courtesy lighting provides well lit entry and exit.
Service indicator can identify vehicles in busy garages requiring attention.
Lighting check switch eases driver's vehicle inspection.
Continuous saloon lighting is provided by stylish LED strips as standard. LED lights are standard throughout the vehicle with the exception of the headlamps.

Destination Gear

Electronic LED destinations are offered as standard on all vehicles. Front, side and rear LED illuminated blinds are also available.

Ramps

Both manual and powered ramps are available.

Options

- Driver's cab air conditioning
- Upper saloon air chill
- Wireless bell pushes
- Ambient sensed internal and external lighting
- Front door sensitive edge
- Electric powered ramp
- Electric doors
- Coloured LED destinations
- Coloured LED saloon lighting
- CCTV
- RTPI
- WiFi
- Underseat lighting
- Upper saloon tables
- Telematics
- Passenger counting
- LED dipped beam
- 240 volt sockets

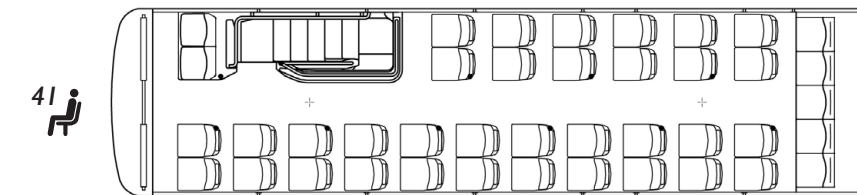
Seating

Seating is available from a wide range of manufacturers with standard offerings such as:
- Civic V2
- Civic V3
- Pratico Low Back
- Pratico High Back
- Ethos High Back
- Transito

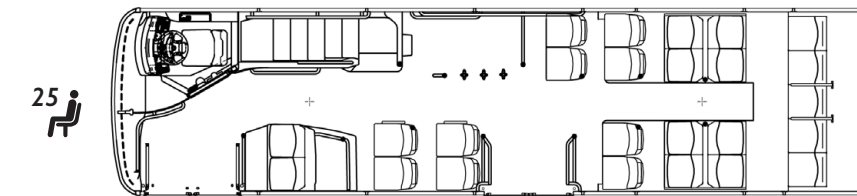


SEATING SPECIFICATIONS

10.4m TWO DOOR

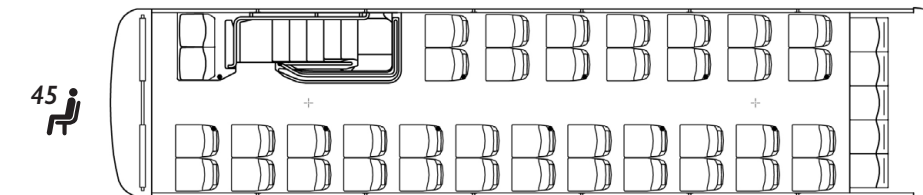


Upper Saloon

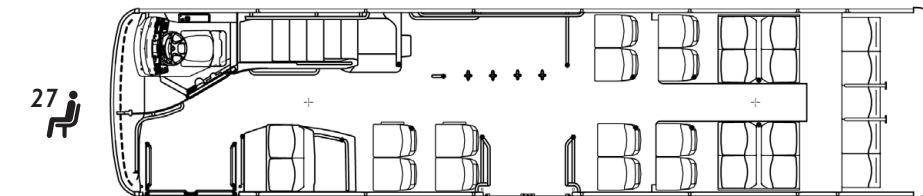


Lower Saloon

11.1m TWO DOOR



Upper Saloon



Lower Saloon